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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/528,810	06/07/2006	Thomas Hans Bracunl	3926.141	6209
30448	7590	08/07/2007		
AKERMAN SENTERFITT P.O. BOX 3188 WEST PALM BEACH, FL 33402-3188			EXAMINER RATCLIFFE, LUKE D	
			ART UNIT 3662	PAPER NUMBER
			MAIL DATE 08/07/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,810

Applicant(s)

BRAEUNL ET AL.

Examiner

Luke D. Ratcliffe

Art Unit

3662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 15-19 is/are rejected.
- 7) ☒ Claim(s) 11-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, **claim 4** recites the broad recitation between 0.2m and 1m, and the claim also recites 0.3m which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6, 9, 10, and 15-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Yasui (EP 1094337).

Referring to **claims 1, 15, 17, and 18**, Yasui shows observing the lateral environment of a vehicle (figure 1 and 10 A-C), recording a sequence of digital images (paragraph 30-39), vehicles own movement is sensed to select images (paragraph 30-39), the position and orientation of the camera which are present at the two recording times are determined (paragraph 30-39), a local 3D depth image is generated on the basis of the image pairing (paragraph 30-39), and the position and orientation of the camera at recording times are taken into account with the scope of a synthetic stereoscopic geometry (paragraph 40-47).

Referring to **claims 2 and 16**, Yasui shows the vehicles movement is sensed on the basis of speed, the number of revolutions of the wheel, navigation information or data from vehicle movement dynamics systems (paragraph 30).

Referring to **claim 3**, Yasui shows buffered images are selected (paragraph 35-45).

Referring to **claim 4**, Yasui shows a preferable range between 0.2m and 1m (paragraph 33-36).

Referring to **claim 5**, Yasui shows buffered images that are selected when the

Art Unit: 3662

camera has not been significantly changed (paragraph 35-45).

Referring to **claim 6**, Yasui shows a sequence of local 3D depth views are accumulated, wherein the image data of the individual local 3D depth views which can be assigned to the same location points in the environment of the vehicle are added to one another (paragraph 37-46).

Referring to **claim 9**, Yasui shows a volume is represented by accumulating 3D depth views is divided into individual volume elements with the scope of the weighting (paragraph 47).

Referring to **claim 10**, Yasui shows elements stored in a tree structure (paragraph 33-46).

Referring to **claim 19**, Yasui shows a camera is a component of an image recording system which is already located in the vehicle (figure 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasui (EP 1094337) in view of Ishii (200410105579).

Referring to **claims 7 and 8**, Yasui shows observing the lateral environment of a vehicle (figure 1 and 10 A-C), recording a sequence of digital images (paragraph 30-39), vehicles own movement is sensed to select images (paragraph 30-39), the position and orientation of the camera which are present at the two recording times are determined (paragraph 30-39), a local 3D depth image is generated on the basis of the image pairing (paragraph 30-39), and the position and orientation of the camera at recording times are taken into account with the scope of a synthetic stereoscopic geometry (paragraph 40-47). Yasui shows a sequence of local 3D depth views are accumulated, wherein the image data of the individual local 3D depth views which can be assigned to the same location points in the environment of the vehicle are added to one another (paragraph 37-46). However Yasui does not teach weighting the received data.

Ishii teaches a similar system that weights the incoming data to stress the importance of the most pertinent data. It would have been obvious to modify Yasui to include the weighting of data as taught by Ishii because this allows Yasui to give the most important data precedence over other data when it comes time to make the decision of where the car is relative to the space around it. It would also be obvious with this modification to then use the weighted data when the 3D depth views are accumulated.

Allowable Subject Matter

Art Unit: 3662

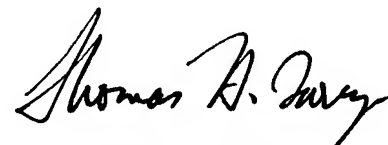
Claims 11-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke D. Ratcliffe whose telephone number is 571-272-3110. The examiner can normally be reached on 10:00-5:00 M-Sun.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Tarcza can be reached on 571-272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LDR



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